

Appl. No. 09/880,458
Amdt. dated 11/17/2003
Reply to Office Action of September 15, 2003

PATENT

REMARKS/ARGUMENTS

Claims 1-42 are pending in the present patent application. Claims 1-4, 19, 20, 22, 28, 38, and 40 were rejected.

Claim 4 has been amended. No new matter has been added to amended claim 4.

Allowable Subject Matter

The office action allowed claims 39, 41, and 42. The office action also indicated that claims 5-14, 16-18, 21, 23-27, 29-32, and 34-37 contain allowable subject matter.

Rejection of the Drawings

The office action rejected the drawings under 37 CFR § 1.83(a) for purportedly failing to show the snoop circuitry of claims 12-13.

The applicants respectfully disagree with this rejection.

The present application states that "This feature allows input signals that are driven into embedded processor portion 401 or output signals to be monitored or 'snooped' by circuits in programmable logic portion 402 to perform various functions. For example, circuits in programmable logic portion 402 may monitor input signals received on pin 501 that are sent to embedded processor portion 401 (i.e., switch 506 ON) to perform debugging functions by providing an output signal when a trigger point is reached." Page 10, lines 30 - page 11, line 2.

Figure 6 of the present application illustrates a programmable logic portion 402 of integrated circuit 400. As stated in the above quoted passage, programmable logic portion 402 performs the snoop circuitry function.

It is well known to those of skill in the art how to program programmable logic circuitry to monitor an input signal and to provide an output signal when a trigger point is reached. Therefore, it was not necessary to illustrate in the Figures exactly how to program programmable logic portion 402 to perform the snoop circuitry functions.

For these reasons, it is submitted that the illustration of programmable logic portion 402 in Figure 6 coupled with the description in the patent application satisfies the requirements of 37 CFR § 1.83(a).

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Objection to Claim 4

Claim 4 has been amended to change "the output" to "an output" as requested by the office action.

Prior Art Rejections of Claims 1-4, 19, 20, 22, 28, 33, 38, and 40

The office action rejected claims 1-4, 19, 20, 22, 28, 38, and 40 as being anticipated by U.S. Patent 5,347,181 to Ashby et al.

Applicants respectfully disagree with this rejection.

The office action states that ASIC cell block 16 in Ashby corresponds to the "programmable logic circuitry" of claim 1. However, ASIC generally stands for "application specific integrated circuit."

An application specific integrated circuit is not a programmable logic circuit. An application specific integrated circuit (ASIC) is hardwired during manufacture to implement only one circuit design. An ASIC cannot be reprogrammed after it is manufactured.

A programmable logic circuit, on the other, can be programmed and re-programmed after it has been manufactured to implement a variety of circuit designs. A programmable logic circuit has the flexibility to implement multiple types of circuit designs. An ASIC does not have this flexibility.

Thus, Ashby does not disclose or suggest an integrated circuit with programmable logic circuitry and a processor with shared I/O circuitry per claim 1. Therefore, it is respectfully submitted that claim 1 and its dependent claims are novel and nonobvious over Ashby for at least these reasons. Claims 19, 20, 28, 30, 33, and 40 and their dependent claims are also novel and nonobvious over Ashby for similar reasons.

CONCLUSION

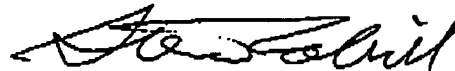
In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

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Respectfully submitted,



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